

Welcome to the text alternative for the **GSFC-Environmental Management System Awareness Training For Wallops Flight Facility** course.

Image: Picture of employees receiving the “Caught Doing Something Green Award” with Wallops Director and Virginia Department of Environmental Quality representatives.

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Training Overview

Wallops Flight Facility (WFF) Environmental Management System (EMS)

- Key Elements:
 - EMS Introduction
 - Sustainability
 - Environmental Policy
 - Mission and the Environment
 - High Priorities
 - Emergency Preparedness and Response
 - Spill/Release Prevention
 - Highlights to Remember
 - Quiz

Why Have an Environmental Management System (EMS)?

- **NASA is required to implement an EMS to:**
 - Promote effective environmental management.
 - Meet federal sustainability goals and objectives.
- **An EMS reduces NASA's risk by:**
 - Identifying significant environmental impacts of programs and projects.
 - Minimizing mission delays and costs due to failure to address these impacts.

Sustainability is Interwoven in WFF's EMS

- **Sustainability means:**
 - Executing NASA's mission without compromising our planet's resources.
 - Providing future generations with an environment that is protected and enhanced.
 - Investing smart to save valuable resources, which can then be used to support the mission.
 - Managing risks to mission, the environment, and our communities.
- **EMS provides the framework for executing sustainable practices in our day-to-day job.**

Image: This is a picture of stick figures joining hands around the Earth. Below this is a picture of a stick figure, with arms raised, looking up to the sun.

EMS Policy - How is EMS Integrated into Your Day-to-Day Job?

The Goddard Space Flight Center's (GSFC) missions expand knowledge of the Earth and its environment, the solar system, and the universe. To maintain our nation's leadership in this endeavor, GSFC commits to conducting missions in a manner that promotes environmental stewardship. As an integral part of all mission planning and implementation, GSFC's Environmental Policy* is to:

- a. Consider the neighboring natural environment while executing GSFC's mission;
- b. Comply with applicable federal, state, and local legislation and regulations; Executive Orders (EO); NASA policies and other requirements;
- c. Prevent pollution and conserve natural resources;
- d. Implement pragmatic and cost effective solutions to environmental problems;
- e. Communicate with GSFC's family, our partners, and the public;
- f. Continue to improve our environmental performance through our Environmental Management System (EMS) including:
 - (1) Promote awareness through education and training;
 - (2) Consider the environment as we do our jobs;
 - (3) Explore advances in environmental technology; and
 - (4) Provide a framework for setting objectives and targets.

*** Goddard Procedural Document 8500.1 – Environmental Policy and Program Management**

Images: On the lower left is a picture of a sunset above coastal calm water. On the lower right is a picture of the White House.

Images: On the lower left is a picture of people planting beach grass on a dune. To the right of that is a picture of two people planting marsh grass in a muddy

marsh. The third picture shows a net on the beach which is being collected during the annual International Coastal Cleanup Day. On the far right is a picture of two people looking at exhibits at an Earth Day Event.

Images: On the left is a picture of a training class with one instructor in the front of the class and 3 students. Below that is a picture of a man removing accumulated sediment from a storm drain. On the right is a picture of members of the Environmental office at NASA Langley for a conference. Below that picture is a picture of the EMS program manager presenting the new High Priorities while an attendee is taking notes.

EMS Policy - How is EMS Integrated into Your Day-to-Day Job?

These commitments enable each of us to do our part for the environment in our backyard.

Images: Picture of Bill Wrobel, Wallops Flight Facility Director.

What Does this Mean to You?

- We work, live and play in this environment.
- We care deeply about our environment.
- We want to protect and preserve it for our children and our children's children.

- Therefore, I commit to:
 - Consider the environment as I do my job.
 - Comply with the law.
 - Prevent pollution and conserve natural resources.
 - Promote ideas for improvement.
 - Engage in environmental awareness at work and at home.

“Because ... it's my backyard.”

Mission and the Environment – Example 1

WFF's activities interact with the environment. Every activity has an environmental impact, whether good or bad.

WFF Activity

Aircraft touch-and-go.

Causes

Air quality, quality of life issues.

Effect

Noise, increased air pollutants.

Image: An A-10 aircraft landing at WFF's runway during a training exercise. Here a brief landing is followed by an immediate take-off (touch-and-go).

Mission and the Environment – Example 2**WFF Activity**

New construction or rehabilitation of existing facilities.

Causes

Water quality issues, including storm water and wetland impacts.

Effect

Increased sedimentation in surface waters and habitat degradation.

Image: Silt fence installed at the new Main Gate construction site prevents storm water debris from entering local waterways and impacting surface water.

Mission and the Environment – Example 3**WFF Activity**

Rocket launches.

Causes

Air quality issues, protected species impacts.

Effect

Noise, increased air pollutants, and animal disturbance.

Image: Orbital rocket launch from Wallops Launch Pad 0-B.

As a result of our dynamic mission, management annually focuses on the top environmental issues, which are identified by a team of employee representatives.

The High Priorities are:

- Water Quality
- Protected Areas and Protected Species
- Energy and Sustainability
- Environmental Planning
- Site Restoration

Water Quality

Why This Is Important?

- The Eastern Shore has limited water resources.
- Our activities generate impacts to surface water.
- Good drinking water quality is the focus of WFF's water program.

Environmental testing to assure good water quality.

Images: Picture of two chemists performing analysis in the Chemistry Laboratory.

What Can You Do?

- Help WFF reduce potable water use intensity.
 - Use the smallest amount of water that achieves the objective.
 - Don't run water faucets unnecessarily.
 - Promptly report water leaks.
 - Reduce use of toxic and hazardous chemicals.
 - Prevent pollution and recycle.
 - Maintain equipment properly to avoid drips and spills.
 - Review the Drinking Water Quality Report @:

http://sites.wff.nasa.gov/code250/drinking_water.html

Image: Picture of a person washing hands under a faucet of running water.

Protected Areas and Protected Species

Why This Is Important?

- Environmentally sensitive areas exist at WFF (e.g., wetlands and primary dunes).
- Threatened and endangered species make WFF their home.
- Marine mammals and reptiles are often stranded on Wallops Island.

Images: Picture on the left is of wetlands at Wallops Island. The picture on the right is a close-up of a Loggerhead sea turtle hatching entering the surf at Wallops Island.

What Can You Do?

- Consider environmentally sensitive areas in mission planning.
- Avoid posted Piping Plover nesting areas on recreational beach during the April to October nesting season.

- If you see a stranded marine mammal or sea turtle, call the HELP desk (x4357) or 757-824-2466 by cell phone.

Images: On the left is a picture of a Piping Plover on the beach at Wallops Island. The second picture is of an interpretive sign which is posted on Wallops Island recreational beach. The sign describes the various protective species which can be found on Wallops Island.

Why This Is Important?

Reducing energy use saves money and reduces greenhouse gas emissions.

Using environmentally preferable products and sustainable practices reduces toxins in the environment, makes more efficient use of resources, and saves energy.

Image: Picture is of three large propane tanks near the woods behind Building N-159.

Energy Management/Sustainability

What Can You Do?

- Turn off lights and equipment when not in use.
- Place recyclables in single stream recycling containers.
- Purchase ENERGY STAR, recycled content, environmentally preferable and BioPreferred products.
- Learn more about these programs at:
http://sites.wff.nasa.gov/code250/green_purchasing.html
- Contact the WFF Environmental Office at 757-824-2127 for assistance.

Images: Top picture is of a light switch and the bottom picture is of a recycling station. The recycling station has a blue container for cans and bottles and a white box for recycling paper.

Environmental Planning

Why is this Important?

- New missions require early environmental analysis to:
 - Avoid mission delays.
 - Enable environmentally sound mission success.
 - Comply with federal law.

Images: The picture on the left is an aerial photograph of Wallops Island shoreline from the south looking north. The middle picture is of the Horizontal Integration Facility and the third picture is of a night orbital rocket launch.

What Can You Do?

- Contact the WFF Environmental Office early in the planning of your project.

Site Restoration

Why This Is Important?

- Remediation of historic contaminated sites protects human health, the environment, and returns the land for mission use.
- Institutional controls are in place to educate our workforce and protect our natural resources.

What Can You Do?

- Check the environmental layers on the Geographic Information System (GIS) database before scoping a project location.

Image: This is a picture of a backhoe excavating a fiberglass fuel storage tank at the Aviation Fuel Tank Farm.

What if You Encounter an Environmental Emergency?

Call 911 or 757-824-1333 (if using a mobile phone) for all spills and releases, and the WFF Fire Department will respond.

Image: This is a picture of a Wallops red fire truck.

How to Prevent Environmental Spills/Releases

- Follow work instructions when handling fuel or chemicals that may be dangerous to humans or harmful to the environment.
- Follow equipment preventive maintenance schedule.

Image: This is a picture of a mechanic performing preventative maintenance on a piece of equipment.

- Attend WFF annual Integrated Contingency Plan (ICP) and Storm Water Pollution Prevention Plan (SWP3) Training.
- Attend WFF annual Resource Conservation and Recovery Act (RCRA) Generator Training if you generate hazardous waste.

Image: This is a picture of an instructor conducting a training class.

Highlights to Remember

- Be familiar with WFF's Environmental Policy.
- Consider the environment in your work.
- Consider smart sustainable practices to support the mission.
- Be familiar with WFF's High Priorities.
- Take appropriate training.
- Know WFF's emergency numbers.

Image: Wallops Flight Facility Logo

Image: 4 stick figures, sitting back-to-back on a round bench, with laptop computers on their laps.

EMS AWARENESS TRAINING QUIZ

1. An EMS is:

- a. A proactive way of thinking, not a reactive one.
- b. A means to better control the way we impact the environment.
- c. A risk-based approach to environmental management.
- d. All of the above.

Please choose an answer before the answer is given below.

The correct answer is d. All of the above.

2. Everyone at Wallops has a role to play in protecting the environment.

- a. True
- b. False

Please choose an answer before the answer is given below.

The correct answer is True.

3. The WFF Environmental Policy:

- a. Drives the EMS.
- b. Is defined by Goddard Space Flight Center (GSFC) and WFF Senior

Management.

- c. Demonstrates management commitment.
- d. Provides a framework for setting objectives and targets.
- e. Communicates commitments to compliance, pollution prevention and continual improvement in environmental performance.
- f. All of the above.

Please choose an answer before the answer is given below.

The correct answer is f. All of the above.

4. What should I do in the event of an environmental emergency?

- a. Call Code 240 - Security.
- b. Call a friend.
- c. Call the WFF Fire Department at 911 or 757-824-1333 (if using a mobile phone).
- d. Call the HELP desk.

Please choose an answer before the answer is given below.

The correct answer is c. Call the WFF Fire Department at 911 or 757-824-1333 (if using a mobile phone).

5. Which is not an environmental high priority identified by WFF?

- a. Protected Areas and Protected Species
- b. Environmental Planning
- c. Energy Management/Sustainability
- d. Hazardous Waste Generation
- e. Water Quality
- f. Site Restoration

Please choose an answer before the answer is given below.

The correct answer is d. Hazardous Waste Generation

6. Sustainability means executing NASA's mission without compromising our planet's resources and providing future generations with an environment that is protected and enhanced.

True

False

Please choose an answer before the answer is given below.

The correct answer is True.

7. WFF incorporates sustainability goals into its EMS.

True

False

Please choose an answer before the answer is given below.

The correct answer is True.

8. Which of the following are not sustainable practices?

- a. Placing recyclables in single stream recycling containers.
- b. Increasing production of greenhouse gases.
- c. Requesting office furniture made of recycled materials.
- d. Helping to conserve water by reporting leaks to the HELP desk.

Please choose an answer before the answer is given below.

The correct answer is b. Increasing production of greenhouse gases.

9. What should I do to prevent spills or releases?

- a. Follow equipment preventive maintenance schedule.
- b. Attend WFF annual Resource Conservation and Recovery Act generator training if you generate hazardous waste.

c. Attend WFF Annual Integrated Contingency Plan and Storm Water Pollution Prevention Plan training if your work involves activities that could result in spills or releases.

d. Follow work instructions when handling fuel or chemicals that may be dangerous to humans or harmful to the environment.

e. All of the above.

Please choose an answer before the answer is given below.

The correct answer is e. All of the above.

10. As an employee, my responsibilities include awareness of which of the following:

a. WFF's Environmental Policy.

b. WFF's High Priorities.

c. How my work impacts the environment and how negative impacts can be prevented.

d. All of the above.

Please choose an answer before the answer is given below.

The correct answer is d. All of the above.

Course Completion

To print your completion certificate:

- Close this training window, go back to the main SATERN window and click on the "Learning" tab, then, select "Learning History".
- Find the "**GSFC- Wallops Flight Facility Environmental Management System Awareness Training**" course in the list and click the "Print Completion Certificate" button.